

Charge for the Particle Data Group Advisory Committee – 2010

The Particle Data Group (PDG) is an international collaboration charged with summarizing Particle Physics, as well as related areas of Cosmology and Astrophysics. In 2010, the PDG consists of 176 authors from 108 institutions in 21 countries.

The summaries are published in even-numbered years as a now 1400-page book, the Review of Particle Physics, and as an abbreviated version (308 pages), the Particle Physics Booklet. The Review is published in a major journal, and in addition the PDG distributes 16,000 copies of it and 31,000 copies of the Booklet. The Review has been cited in 38,000 papers.

The Review includes a compilation and evaluation of measurements of the properties of elementary particles. In the 2010 Review, the Listings include 2,158 new measurements from 551 papers, in addition to 27,337 measurements from 7,749 papers that appeared in earlier editions. Evaluations of these properties are abstracted in summary tables.

The charge of the PDG Advisory Committee is to evaluate the status of ongoing PDG operations including both the Data Listings and the review articles. These two areas get approximately equal usage by the HEP community.

Concerning the Data Listings, the committee should address the content and the procedures. Is the coverage adequate, and are there new areas requiring increased coverage? Are the comments with each data entry sufficiently informative so the reader can understand the context?

Concerning the review articles, the committee should evaluate the reviews both collectively and, to the extent possible, individually. It should examine whether each review serves the purposes of the HEP audience, which ranges from graduate students (and even lower-level students) to senior physicists. Is the level of the material such that the audience can benefit from the review? The committee should recommend new reviews on topics of current interest to the HEP community. The committee may comment on the authors chosen or recommend new authors.

Finally, the committee may wish to comment on PDG's preparedness for the LHC era. One such matter is the role of the PDG in forthcoming combined working groups such as the Higgs boson working group (which may include LHC and Tevatron experiments).

I look forward to receiving a report by the end of January. Thank you for taking time from your busy schedules to review the program of this vital group.